FRUIT VARIETIES IN OHIO. I

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BULLETIN
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FRUIT VARIETIES IN OHIO. I.

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Since its location at Wooster the Ohio Experiment Station has devoted considerable space to the trial of fruit varieties, and reports on their behavior have been issued from time to time. Each year new varieties come into bearing and the records of the older ones become of greater interest. In order to place the observations of these varieties in the hands of Ohio orchardists as promptly as possible a series of bulletins will be issued, of which this is the first. These reports will appear at irregular intervals, from year to year, as conclusions are reached regarding fruits that are of interest to the commercial orchardist or amateur. Some of the varieties which will be mentioned will be comparatively new to the State, others will be older ones that are not included in the usual recommended lists, and still others will be seedlings produced by this or other stations.

The variety is the cornerstone of pomology. On it success in orcharding largely depends. The best of culture cannot make a good out of a poor sort. Fortunate is the region that knows with considerable certainly what varieties it can grow to best advantage and then grows them. A state like Ohio with a diversified climate, soil, and topography, and with varying market conditions and market preferences has difficulty in arriving at a standard list of varieties. But it must be granted that any variety list cannot remain forever unchanged; that improvement in the quality, productiveness, and vigor of varieties is expected. Hence better ones are being sought.

It requires several years' observation by experienced growers, however, before judgment can be passed on a new variety of fruit. This makes the acceptance of newcomers slow. Then it seems to require an extraordinarily long time for such a new sort to attain to

large proportions on the market. This thought is not in disagreement with the one often expressed that we need fewer varieties, for as soon as a "better" one is found the less desirable should be discontinued in future plantings. No further progress along this line would be possible otherwise. Furthermore, the fact that tastes vary necessitates a wider range of varieties for the fast developing home markets where the ultimate consumer makes his own selections thruout the year.

It, of course, must be granted that the testing of a variety in one locality does not insure an index of its behavior in another. The Station is fortunate in having considerable duplication of the more important varieties at its several county farms, as well as opportunity to observe varieties on the grounds of various orchardists thruout the State. Yet experienced observation in even a few localities gives helpful direction in determining the merits and faults of the newer sorts.

It should also be recognized that many considerations other than simply the eating quality of a fruit are involved. First it should be superior to other standard sorts with which it would compete. For instance, with the apple the whole trend is for an attractive red one. Freedom from disease or other weaknesses in both tree and fruit is highly desirable. It should be of good size, of superior dessert or culinary quality, or both, prolific, and usually of good shipping quality. The "pet" varieties of merit that originate on one's own place, but are in no way superior to other sorts, must be definitely rejected.

ENSEE

This apple has been known in Ohio for about forty-five years, having originated about 1880 on the farm of Nelson Cox in Windsor Township, Lawrence County. The name commemorates its introducer N(elson) C(ox). The fruit was exhibited from time to time until 1895 when it was propagated and planted locally. During the next twenty-five years it was gradually disseminated, especially in southern Ohio. Thruout all this time it was rated as "a promising new variety" rather than an established commercial one. An estimate or index of its commercial rating can be gathered at the present time by the new plantings that are being made. While no definite figures are available it can be said that it is now listed by only three nurserymen in Ohio and one outside the State. The judgment of the growers in the sections where it is at its best seems to be that it will be grown as a commercial apple in a rather limited way only, and the new plantings substantiate this judgment.

The Ensee is presumably a seedling of Rome Beauty. The circumstantial evidence leading to this assumption is that the Rome is one of the prevailing apples in the section of the Ensee's origin, that the original tree grew on land adjacent to an old cider mill, and that the tree and fruit characters resemble Rome Beauty to a considerable extent. The outstanding merits of the apple are good quality (considerably better than Rome), uniformly good size, attractive appearance when well grown, and good keeping quality. The chief objections are its slow growth when young, susceptibility of the fruit to russeting, and tendency to fire blight.

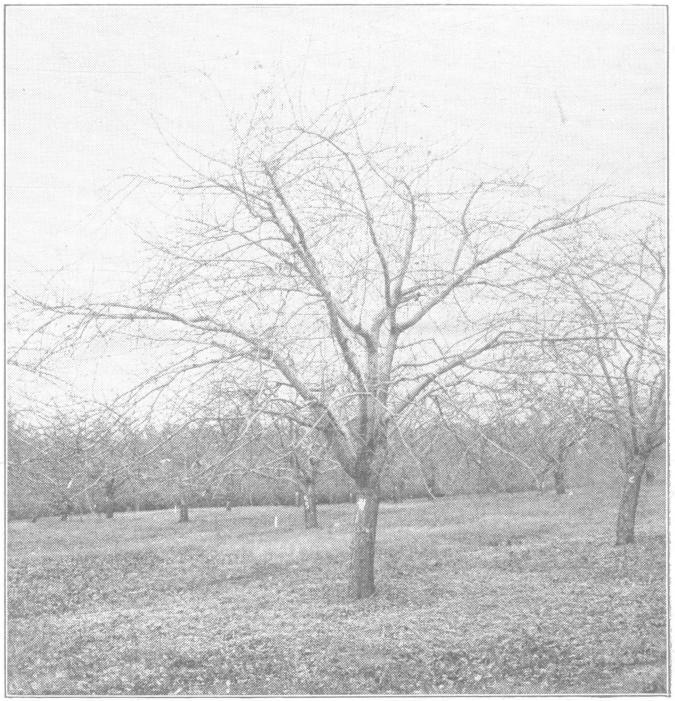


Fig. 1.—Ensee tree as grown at Wooster. Original tree was planted 1900, top-worked to Ensee 1904. Photo December, 1925

In northern Ohio this variety cannot be recommended from present evidence, because of its slow growth and tardiness of bearing as compared with other varieties that can be grown. In southern Ohio the variety has sufficient merit to recommend it for a limited portion of the commercial plantings where the soil is moist and fertile, but at the present time it is not included in a standard

list of commercial apples for the State. Its planting will probably not assume large proportions in the future despite the merits which Ensee possesses.

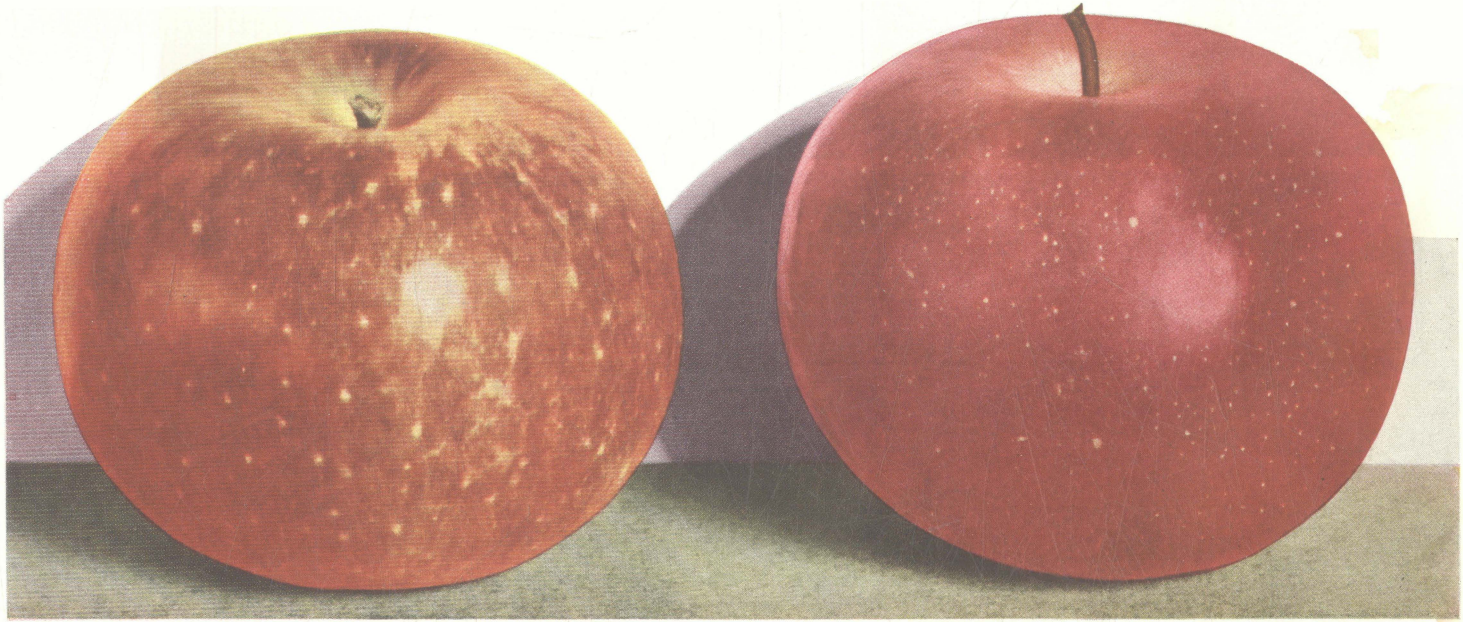
Description of Tree and Fruit

Tree of rather slow growth, upright, bushy with many small interlacing twigs; branches long, slender; bark yellowish brown, smooth; twigs long, slender, reddish brown; leaves medium size, round ovate to oval, medium green. A little more subject to blight than Rome Beauty. Fairly productive. Average date of full bloom at Wooster about four days earlier than Rome Beauty.

Fruit medium to large and generally very uniform in size, roundish-oblate, unsymmetrical, irregular ribbed; stem medium in length and slender; cavity wide, deep, acute, sometimes lipped, slightly russetted; calyx small, closed; basin narrow, deep, abrupt, furrowed with red coloring extending into basin; skin rather thin, tough, smooth, somewhat glossy, russets rather seriously from spray injury; dots conspicuous, scattering, russet or grayish; color yellow, washed and mottled with bright crimson, obscurely streaked with carmine; general effect bright orange red, modified by gray scarfskin on most specimens; seeds numerous, medium size, coffee-brown in color; core rather large, partly open; flesh yellow, firm, somewhat coarse, granular, moderately juicy; flavor rich, subacid, pleasing aroma; quality very good; season early to mid-winter, maturing in January and keeping fairly well until March; ready to pick at Wooster about October 15, or approximately 10 days ahead of Rome Beauty.

GALLIA BEAUTY

Red sports or strains.—As a foreword to a discussion of the Gallia Beauty a general statement in regard to red sports or strains of apples is in order. Horticulturists are familiar with the fact that plants of a given variety vary so that no two are exactly alike. Occasionally a tree or plant differs conspicuously from the others of the same variety. It may be that one Baldwin tree consistently bears heavier than the others, produces redder, larger or smaller apples, or shows some other aberration. The question then arises, can such variations within the individual be perpetuated or made permanent by budding or grafting? A definite answer to this question can be obtained only by actual trial. Usually the variations have not been found to be permanent, and the explanation for the changed behavior seems to be in the root stock, the soil, or some



ENSEE

GALLIA BEAUTY

other environmental factor. But occasionally the variation, whether in the entire tree or branch, *is* perpetuated by propagation, in which case it is called a sport, mutation, or strain and is as permanent in its new form as the original variety.

The only apple varieties that have originated as bud sports and been introduced to the trade are red or russet strains of some of the red apples. Their history is not always clear, but the following are either red sports or seedlings: Red Spy, Banks (red Gravenstein), Red Duchess, Collamer and Hitchings (both red Twenty Ounce), Red Russet (Baldwin), Red Rome Beauty and Gallia Beauty (both red variants of Rome Beauty), and Starking (red Delicious). Others have, no doubt occurred and some have been propagated locally, such as a red Rambo and a red Stark. Furthermore, it seems that when a variety throws one sport others are likely to be found—that is, the variety is somewhat unstable in that particular. This has been notably true of Rome Beauty for there are several seedlings that are almost identical with Rome except in color, and some that are sports.

If these red varieties are, as they seem, practically the same as the original variety in all essential points, except color, the orchardist in the future would do well to plant the red strains of the red varieties in order to secure the higher price that the highly colored apples are sure to command.

History of Gallia Beauty

The history of Gallia Beauty is somewhat obscure. The following statement has been provided by E. J. Riggs of Gallipolis, Ohio.

"In 1857 William Coon of Clay Township, Gallia County, whose farm adjoins mine, went to Proctorville, Ohio, and purchased some young Rome Beauty apple trees from the Turley Nursery. These trees were set out on Mr. Coon's farm and given very poor care. About 1862 hogs and cattle destroyed many of the trees, one of them was practically uprooted and, a few feet from the trunk of the tree, there sprung up from the root a vigorous young sprout, which Mr. Coon permitted to remain and take the place of the badly damaged tree. It came into bearing quickly and as the apple was much more attractive in appearance and slightly better quality than the Rome Beauty he propagated a few trees from it. From this start the Gallia spread rather slowly for a number of years.

"It is now being propagated by at least three nurserymen and is gaining in favor.

"I have personally distributed cions in practically every fruit growing state east of the Mississippi River, and some have gone to Washington and Oregon and other fruit growing states of the West."

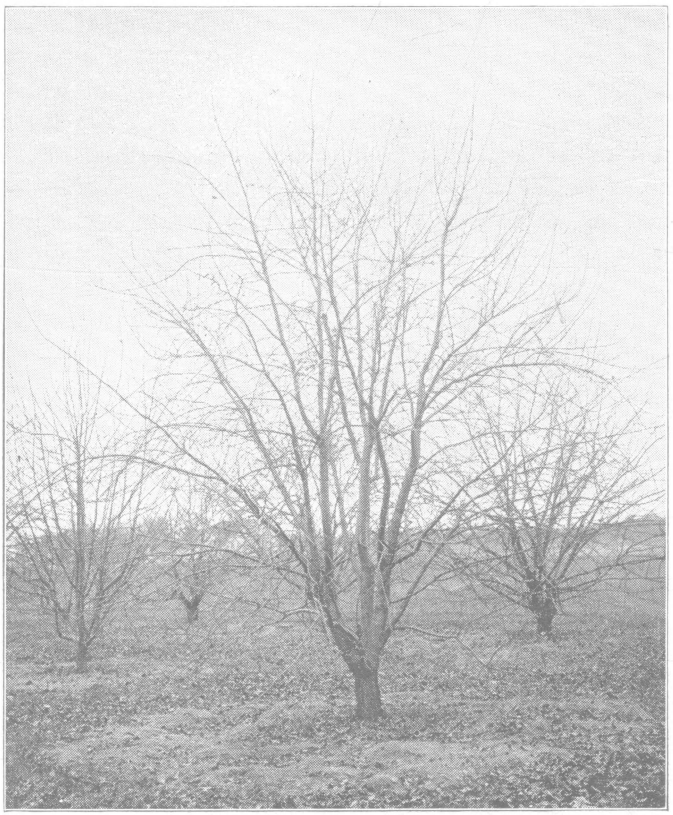


Fig. 2.—Gallia Beauty in foreground. Stayman tree planted 1913, top-worked to Gallia Beauty 1915. Note upright habit, identical with Rome Beauty, and the beginning of drooping habit caused by bearing from terminals. This tree at ten years of age has been in commercial bearing for three years. Photo December, 1925

The variety was first known locally as Coon Seedling until ten years ago when Mr. Riggs brought it to the attention of the Ohio Horticultural Society. At that time he suggested the name Gallia Beauty in recognition of the county of its origin.

From the behavior of this variety on the farm of Mr. Riggs, in the Experiment Station orchard at Wooster, and elsewhere, it would seem to seriously threaten the future of the ordinary strain of

Rome Beauty. It can be picked about two weeks earlier than Rome Beauty, not because it is earlier but because of its early coloring, and it has commanded a higher price than Rome Beauty on the wholesale market.

Description of Tree and Fruit

Tree medium sized, practically identical with Rome Beauty in every particular, even to the production of fruit on terminal buds; comes into bearing moderately early and produces fair to heavy crops annually; blooming season as late as that of Rome Beauty and extends over a little longer period.

Fruit medium to large; form rounding oblate, slightly inclined to conical; stem medium length and slender; cavity wide, deep, acuminate; calyx medium size, closed or partly open; basin rather deep, medium width, abrupt, slightly furrowed, pubescent around calyx; skin thick, tough, glossy, sometimes overspread with grayish bloom, takes polish very readily; dots prominent, grayish; color yellow, almost completely overspread with bright crimson, nearly solid; seeds medium to large, dark brown, acute; flesh creamy white, fine grained, moderately juicy in midwinter, but becoming dry and mealy in late winter; quality good; picking season late October. This variety matures in common storage in midwinter and, like Rome Beauty, keeps in excellent condition in cold storage.

SUMMER RAMBO

The Summer Rambo, altho an old variety, deserves special mention for certain Ohio conditions. Where fruit is grown largely for the home and roadside market there is a demand for a large, attractive apple of both dessert and culinary qualities, that ripens in late summer. The tree and the fruit characters commend it to the orchardist. A limited planting in both northern and southern Ohio for local markets would seem justified by 20 years' experience at the Station and by reports of its behavior elsewhere in the State.

Origin and name.—A review of the literature leads one to the conclusion that the nomenclature of Summer Rambo, Western Beauty, and Grosh is confused. Some authorities claim that Grosh originated in Ohio and others in Pennsylvania. Summer Rambo is said to have originated in France, and Western Beauty in Ohio. It seems likely that Western Beauty is not a distinct variety, but that cions carried into Auglaize County, Ohio, where the variety first attracted notice, came originally from a Summer Rambo tree.

Grosh, as grown at the Ohio Station, is identical with Summer Rambo. For all practical purposes it seems best to call the variety Summer Rambo and list Grosh and Western Beauty as its synonyms.

This variety is also quite frequently confused with English Rambo, which is nearly a month later than Summer Rambo. The latter is not quite as good in quality and is globular in form.

Description of Tree and Fruit

Tree of vigorous growth and spreading habit, differing in both of these characteristics from the Rambo; naturally open, requiring little pruning; branches long and thickly set with spurs on which the fruit is borne; twigs stout reddish brown; leaves medium to large, rather heavy texture, broad ovate to oval, dark green. Except where blight is very prevalent, the tree is not seriously attacked by disease. This variety reaches fruiting age about 10 years from planting and once in fruiting can be depended upon to produce heavy and light crops in alternate years of uniformly large apples. Its blooming season is slightly earlier than mid-season.

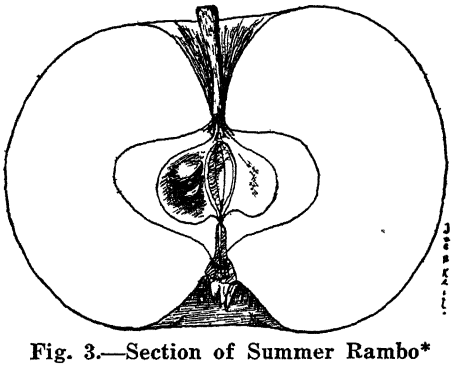


Fig. 3.—Section of Summer Rambo*

Fruit large to very large, form oblate, irregular, usually elliptical; stem long, slender to moderately stout; cavity wide and rather deep, often largely russetted; calyx rather large, closed; basin wide, deep, abrupt, furrowed and wrinkled; skin rather dry and harsh, thick, tough, light but persistent whitish bloom; dots numerous, grayish or russet, large and conspicuous; color greenish-yellow, dotted and streaked with dull pink, streaked and washed with bright red to deep crimson; seeds rather large, plump, brown; flesh white, very juicy, crisp, slightly granular; flavor mild, subacid; quality excellent for both dessert and culinary uses. Season late August to mid-September.

BALTIMORE

The behavior of the Baltimore, one of the old varieties described in Bulletin 290 of this Station, has attracted the attention of many orchardists in the last few years, and it can again be considered for certain sections.

*Drawing of Summer Rambo by J. B. Keil.

The Baltimore is of unknown origin and has been grown to some extent in nearly all sections of Ohio. In one locality in the southern part of the State it has been grown under the name of Pryors Red, which is a misnomer, since Pryor is quite different. In eastern Ohio, notably in Columbiana County, the variety is grown under the name of Flushing Spitzenburg. It is apparent from a study of pomological literature, however, that this variety is distinct from Flushing Spitzenburg altho somewhat resembling it. The latter is everywhere described as unproductive and of poor quality. Only recently specimens were received from Pennsylvania where the apple has been grown under a still different name. It seems very likely, because of the various names given the variety in different localities, that it has been disseminated from several sources.

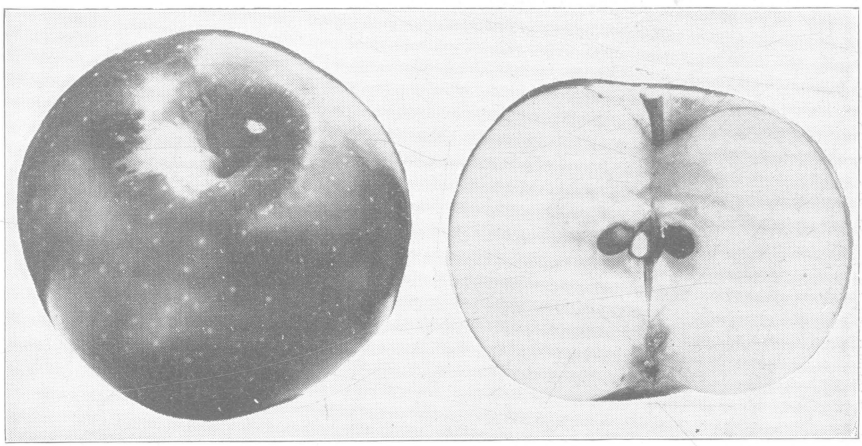


Fig. 4.—The Baltimore Apple

While the plantings of the variety reach limited commercial proportions in widely scattered sections, it seems safe to say that the largest plantings are in the eastern counties of the State.

From experience at the Station and elsewhere in Ohio it may be concluded that the variety comes into bearing early and produces moderate crops annually and that the trees are long lived. The oldest trees now standing (1926) in the Experiment Station orchards at Wooster are two trees of Baltimore. These trees remain from an orchard which, according to the best information available, was set about 1850. The average annual yield for an 8-year period, ending with 1925, was slightly more than 14 bushels per tree. The largest crop produced in that time on either tree was 24 bushels and the

smallest 2.5 bushels. In fact one of its marked characteristics seems to be the habit of producing crops of fair proportions annually.

The variety blooms rather early, the average date of full bloom for the 8-year period cited above being May 4, as compared with May 7 for the Baldwin during the same period. It comes into bearing early. Two trees set in the Station orchards in 1913 have produced a total of more than 40 bushels, including the crop of 1925, the first crop of commercial proportions being produced in 1918. The same general observation has been made with young trees at the Mahoning County Experiment Farm.

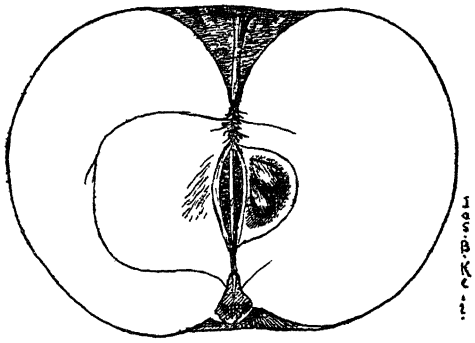


Fig. 5.—Section of Baltimore Apple*

While Baltimore cannot be considered of exceptionally high quality, yet it is of sufficient merit in this respect to warrant its limited use at least. Its chief advantages are attractive coloring, comparative freedom of tree and fruit from disease and insect injury, and its tendency to produce regular and moderately large crops.

The variety deserves some consideration by growers who desire a variety to supplement Baldwin plantings, with which it compares favorably in all respects.

Description of Tree and Fruit

Tree moderately vigorous, spreading, open; branches stout, crooked; bark scaly on trunk and well out on branches, brownish gray; twigs medium to stout; leaves medium to large, dark green, long, oval, heavy texture; fruit borne mostly on spurs; productive.

Fruit of medium and uniform size, round oblate, symmetrical and regular; stem medium length, slender; cavity rather wide and deep, regular, acute, russetted; calyx medium size, closed; basin very shallow, obtuse, usually furrowed and wrinkled, often compressed; skin thin, rather tough, smooth, more or less covered with lilac scarfskin; bloom heavy, persistent, white or grayish, conspicuous; color clear yellow, covered with dark crimson, shading to carmine with obscure stripes of darker shade; seeds small, plump,

*Drawing of Baltimore by J. B. Keil.

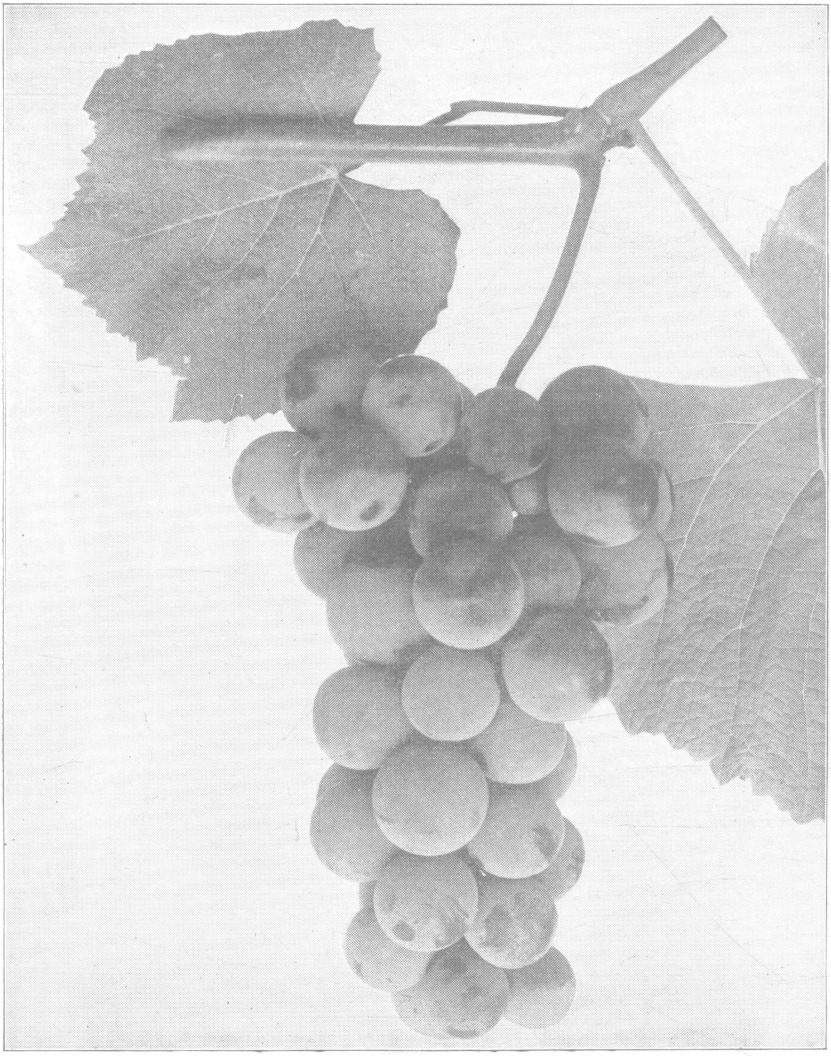


Fig. 6.—The Caco grape—reduced in size for printing

brown or grayish; flesh creamy white, often tinged with pink near the skin; rather firm, crisp, juicy, fine grained; flavor subacid, pleasant aroma; quality very good. Season midwinter.

CACO GRAPE

There has been no recent material change in grape varieties for Ohio planting except the gradual elimination of old sorts that were in favor when grapes were used largely for wine. Probably 85 to 90 percent of the vines are now Concord with little interest in others for commercial planting. However, the various phases of local and roadside marketing that are developing for other fruits will apply in a smaller way to the grape. That is, the moderate planting of high quality, attractive grapes for dessert purposes, to be sold to the local and automobile trade, is worthy of consideration.

In addition to the many excellent grapes that have been produced by American hybridizers, there is a newcomer that deserves planting for the above purposes. The Caco was planted at the Station in 1912 and, since it began to bear, has been conspicuous among the 112 varieties that are grown in this vineyard. Its vigorous growth, hardiness, productivity, high quality, and attractiveness all combine to make it worthy of favorable mention.

The history of the Caco is not entirely clear. It was introduced by the Lovett Nursery Company, New Jersey, in 1911. It was purchased by this company from an "old hybridizer" who claimed the variety to be a cross between Concord and Catawba, from which varieties its name was coined. See Fig. 6.

Description of Vine and Fruit

Vine vigorous, hardy, prolific. Fruit midseason to later, ripening a little earlier than Concord; clusters medium, often compact; berries large, round; color amber red covered with heavy bloom giving it an attractive, waxy appearance; skin moderately thick, tender, parting readily from the flesh; flesh firm, juicy, tender; flavor, sweet, rich, aromatic, free from any pronounced foxy or musky flavor that is objectionable to some persons; quality excellent and remaining so for some time after ripening. The variety is self-fertile.

The average yield of Concord in this vineyard for 1922-1924 was equivalent to 4.8 tons per acre, and for the Caco 3.2 tons.